

In the Specification

Please replace the paragraph beginning on page 1, line 6 with the following amended paragraph:

The present invention relates to an apparatus for embedding and detecting ~~an~~ a watermark; and, more particularly, to an apparatus for embedding/detecting the watermark having copyright information into/from a digital audio signal and a method thereof, wherein the watermark is embedded into the audio signal by virtue of a linear prediction analysis and the copyright information is extracted from a watermarked audio signal using a short-time autocorrelation.

Please replace the paragraph beginning on page 1, line 17 with the following amended paragraph:

In recent years, as ~~a computer network such as internet~~ computer networks, such as the Internet, and a use of a computers are enormously increased, a digital multimedia is generally used and popularized. However, the digital multimedia is easily duplicated due to its own characteristic so that everybody can access and copy the digital data with ease through piracy. Therefore, demands for the data piracy protection and protecting the copyright and an ownership of creators are severely required nowadays.

Please replace the paragraph beginning on page 12, line 12 with the following amended paragraph:

As described already, the apparatus for embedding and detecting watermark and the method thereof have several advantages as followings: first, it is possible to utilized the inventive apparatus and method as a copyright protection technique effectively; second, the watermark can be embedded into the audio signal without deteriorating the quality of the audio signal; third, the watermark is detected stably although an arbitrary attack such as compression, time-scale attack and filtering is launched thereinto; fourth, the present invention can be available for authentication to confirm the concoction or deformation of the digital audio signal; fifth, the present invention can be used suitably for a usage control to control an allowable duplication time by means of the watermark when the digital data is played through a ~~potable~~ portable device or an audio device; and sixth, it is also possible to transmit a supplementary data by using the watermark.